

UNUSUAL PSYCHIATRIC MANIFESTATIONS OF NEUROLOGICAL DISEASE*

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In the busy general hospitals throughout the country, more and more psychiatric pavilions, wings or floors are being opened. For many years it has been standard practice in all of the Navy hospitals, to have a neuropsychiatric service, however small, which includes at least one medical officer. (The larger hospitals have several medical officers in the department, headed by a Board-certified psychiatrist.) This medical officer is expected to be moderately competent in both neurology and general clinical psychiatry, which often meets with some critical comment, especially from the younger medical officers, who are primarily trained in psychiatry, with little or no interest in neurology. Also, there is a tendency on the part of the younger men either to fill a disturbed patient with an ataractic drug, or to attempt to admit him directly to a closed psychiatric ward, without an adequate neurological survey as part of the general physical examination.

I would like to cite three cases which were seen on the neuropsychiatric service at St. Albans Naval Hospital, New York, which demonstrate the need for close clinical observation, no matter how "disturbed" the patient may be.

Case No. 1—This patient was a 21 year old Negro male who was admitted for psychiatric and neurological observation because one evening, while sitting at a table eating, at his duty station, he suddenly grasped his head, exclaimed, "Oh, my God" and then became unconscious for a moment. On awakening he seemed confused and disoriented. He began moving his arms and hands rather stiffly in an aimless manner for about one-half hour. He was then able to give a history of flank pain for a week, and of being awakened the night before by a dull headache, then nausea and some relief following a vomiting spell. After admission to the closed ward the patient continued to appear disoriented and confused, the physical examination being otherwise not remarkable. The next

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morning there was definite stiffness of the neck, nystagmus on lateral gaze to either side and positive Kernig's and Brudzinski's signs. No lateralizing neurological signs were found. A spinal tap revealed a grossly bloody fluid with an initial pressure of 220 mm. of water. The patient was transferred to the neurosurgical service, but was followed by the neuropsychiatric staff. Three days later a second spinal tap revealed an initial pressure of 360 mm. with a grossly bloody fluid. Other examinations were negative, including a skull x-ray. After this the patient improved and a left common carotid arteriogram revealed non-filling of the left anterior cerebral artery. The procedure was well tolerated. The clinical diagnostic impression was that the patient had an acute subarachnoid hemorrhage due to ruptured cerebral aneurysm with subsequent thrombosis of the left anterior cerebral artery. The patient showed a gradual improvement for the next 20 days and then again became unresponsive and made aimless movements of the extremities, similar to those described in the first episode, an aphasia and an adverse turning of the head and eyes to the right. Since it was felt then that the patient had a massive cerebral infarction, surgical intervention was not attempted. He gradually went downhill and expired four days later. Postmortem examination confirmed the diagnosis.

Case No. 2—This patient was a 61 year old white male, retired chief petty officer, who was admitted to the hospital with a history of three days of confusion, disorientation, confabulation and frequent falls. A week previously he had been found on the floor by his neighbor, not unconscious but bleeding from a cut on his nose. He stated that he had fallen over his dog. His son gave a history of the father's having been retired from the Navy 15 years previously because of a coronary thrombosis, and of moderately heavy drinking in recent months, since the patient had been widowed and was living alone, near the son's home. The patient was reported to have varying periods of lucidity in his confusion. Neurological examination revealed only moderately contracted pupils, varying stiffness of the neck, slightly more active deep tendon reflexes on the left and no Babinski. The possibility of the presence of subdural hematoma or a basilar artery occlusion was considered. Immediate electrolyte studies of the blood revealed a sodium of 124 mEq./L as the only abnormality. A lumbar puncture was done without difficulty, the patient tolerating the procedure well. A clear fluid was obtained, with normal dynamics and chemistry. The patient was then considered to be in a low-sodium delirium and was treated with intravenous sodium chloride with potassium chloride added. Within 15 hours the patient's mental status improved and he shortly thereafter was clear and oriented, with some awareness of having been ill. The patient was then moved to an open medical ward where further medical studies were carried out. Though he was transiently confused periodically during the next two weeks, he continued to improve and with proper physiological treatment was able to tolerate well a series of investigations, including a liver biopsy and hepatic catheterization. When liver function returned to normal he was discharged to his home.

Case No. 3—This patient was a 23 year old single white male, midshipman in the Brazilian Navy, who was transferred to the hospital from his ship in the Navy Yard with a diagnosis of "anxiety reaction, acute." There was a history of a recent mild upper respiratory infection with a slight temperature elevation for one day, followed by a complete and sudden change in personality from a conscientious, pleasant and cooperative youth to a negativistic, confused and lethargic patient. On admission to the closed ward, history was unobtainable from the patient due to his negativism and the obvious language barrier. He was noted to be lethargic and posturing. There was no evidence of nuchal rigidity and neurological examination was non-contributory. For two days the patient's condition remained unchanged, except for an increasing dehydration. He remained for long periods in a catatonic-like stupor, assuming bizarre postures. On the third day following admission, the ward nurse, while forcing fluids on the patient, noted a transient strabismus. The patient indicated he had a headache. Physical examination at this time revealed a definite nuchal rigidity and a spinal puncture was done. The pressure was markedly increased, over 300 mm. The cell count revealed 2790 white blood cells with 90 per cent polymorphonuclears, 480 red blood cells, globulin was 3 plus, sugar was 7 mgm per cent, chlorides 645 mgm per cent and protein 117 mgm per cent. Smear of the spinal fluid concentrate revealed many gram-negative extracellular diplococci. A diagnosis of meningococcic meningitis was made and the patient treated with aqueous penicillin and intravenous sulfadiazine. He responded rapidly and within two days was alert and talkative. Within six days he was asymptomatic except for a complaint of diplopia. Examination revealed a paresis of the right lateral rectus muscle. The patient was able to utilize his moderate knowledge of English and to communicate adequately with the hospital personnel. This had been obscured in the early acute phase of his illness. A repeat spinal puncture five weeks after onset of the illness was normal. (No other case of meningitis appeared among the crew of this ship.)

These examples are given to emphasize several points:

1. The line between organic and functional disease is frequently very fine, and there should be only positive reasons for diagnosing either or both in the same patient, one not excluding the other.
2. Any systemic disorder, disturbing the metabolic processes, or any disease activity, may be manifested by a mental disturbance and may also possibly be associated with evidence of nervous system malfunction. One aspect of the total condition cannot be treated successfully while ignoring the other.
3. These phenomena do not obviate or exclude the concurrent psychological processes which are the basis of personality organization and behavior, and which influence the total manifestations of the illness.